

FIG. 1

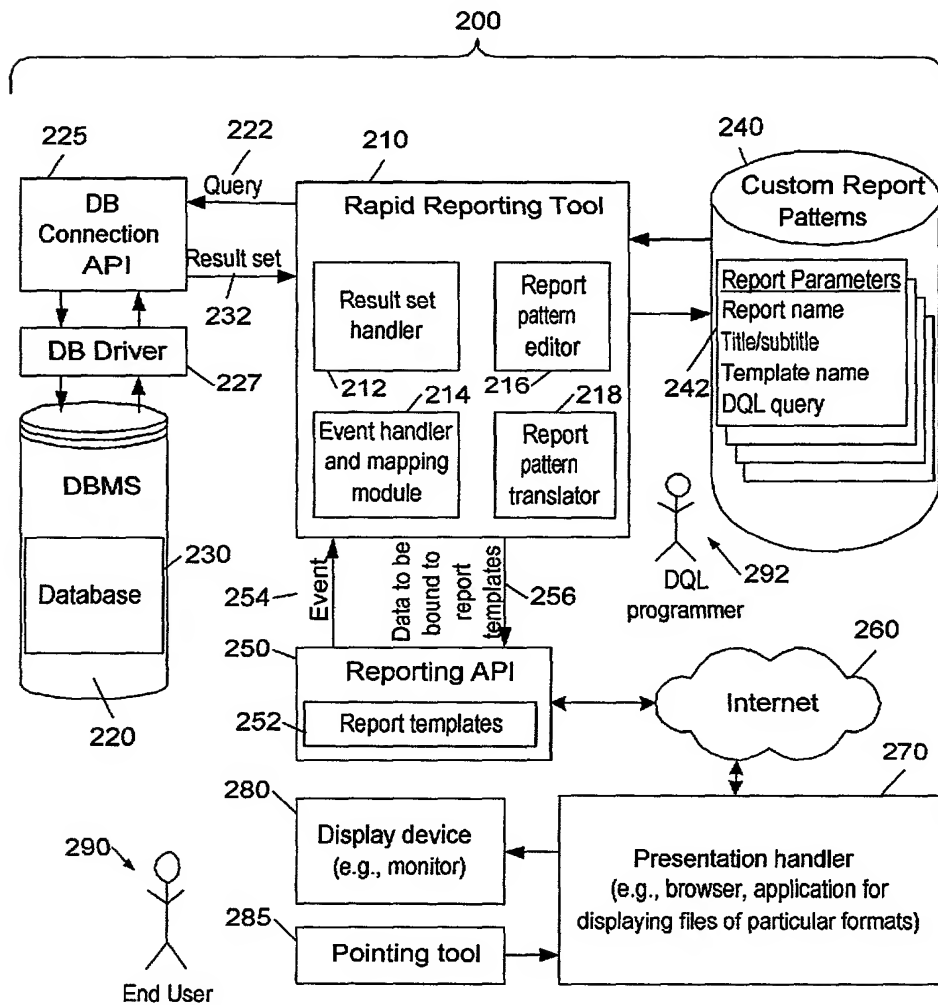


FIG. 2

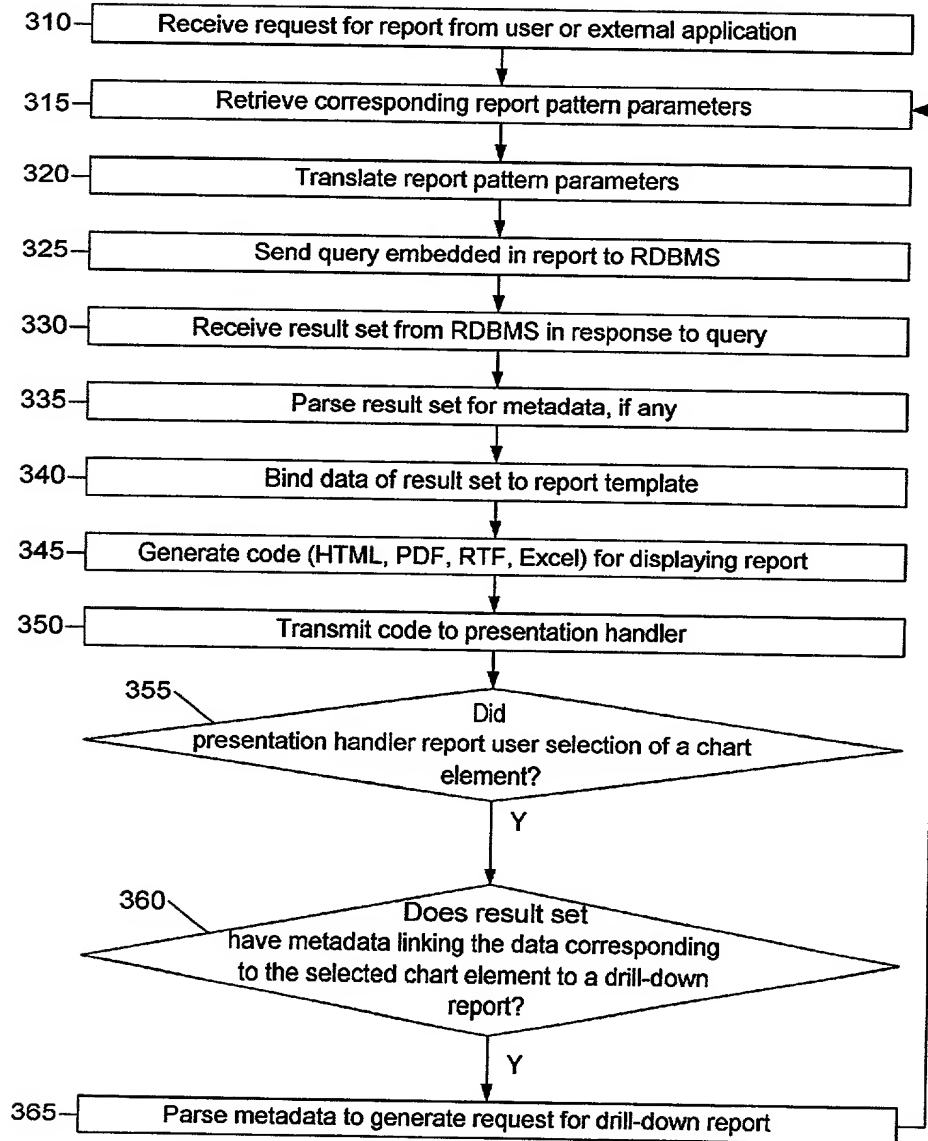


FIG. 3

Title: Relational Database Drill-Down Convention and Reporting
Tool
Inventor: Roderick L. Bames
Attorney Docket No.: BIF.001

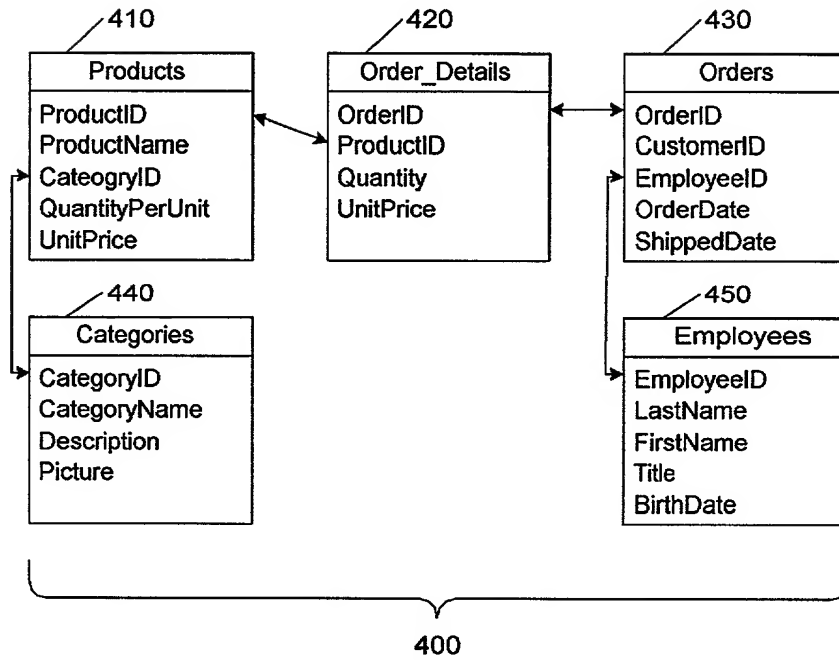


FIG. 4

Title: Relational Database Drill-Down Convention and Reporting
Tool
Inventor: Roderick L. Barnes
Attorney Docket No.: BIF.001

Report Pattern Parameters	
Name	employee_listing —510
Title	MoreBetter Traders —512
Subtitle	Employee Listing —514
Header Logo	Logo.gif —516
Header	—518
Footer	Page {P} of {N} on {D} at {T} —520
Template	3D_bar_chart_and_table —522
Query	<div> <div>550</div> <div> SELECT —552 e.EmployeeID as "Employee ID", —554 e.FirstName as "First Name", —556 e.LastName as "Last Name", —558 sum(od.Quantity*od.UnitPrice) as "Total Sales", —560 'x_title=Employee Last Name&y_title=Total Sales&labels=2&columns=3' as mb_chart, —562 'mb_report_name=employee_sales_detail_by_year_by_cat egory&employeeid=' e.EmployeeID '&employeeName=' e.FirstName ' ' e.LastName '' as mb_drilldown —564 FROM —566 Employees e, —568 Orders o, —570 Order_Details od —572 WHERE —574 o.EmployeeID = e.EmployeeID —576 AND od.OrderID = o.OrderID —578 GROUP BY —580 e.EmployeeID, e.FirstName, e.LastName </div> </div>
Data Source	MoreBetter_Traders_Database.db —590

500

FIG. 5

	610	620	630	640	650	660
Employee ID	First Name	Last Name	Total Sales	mb_chart	mb_drilldown	
1	Nancy	Davolio	10036.11	x_title=Employee Last Name&y_title=Total Sales&labels=2&columns=3	mb_report_name=employee_sales_by_year_by_category&employeeid=1&employee_name='Nancy Davolio'	
2	Andrew	Fuller	11211.51	x_title=Employee Last Name&y_title=Total Sales&labels=2&columns=3	mb_report_name=employee_sales_by_year_by_category&employeeid=2&employee_name='Andrew Fuller'	
3	Janet	Leverling	10238.46	x_title=Employee Last Name&y_title=Total Sales&labels=2&columns=3	mb_report_name=employee_sales_by_year_by_category&employeeid=3&employee_name='Janet Leverling'	
4	Margaret	Peacock	17296.60	x_title=Employee Last Name&y_title=Total Sales&labels=2&columns=3	mb_report_name=employee_sales_by_year_by_category&employeeid=4&employee_name='Margaret Peacock'	
5	Steven	Buchanan	6775.47	x_title=Employee Last Name&y_title=Total Sales&labels=2&columns=3	mb_report_name=employee_sales_by_year_by_category&employeeid=5&employee_name='Steven Buchanan'	

FIG. 6

Title: Relational Database Drill-Down Convention and Reporting Tool
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 Attorney Docket No.: BIF.001

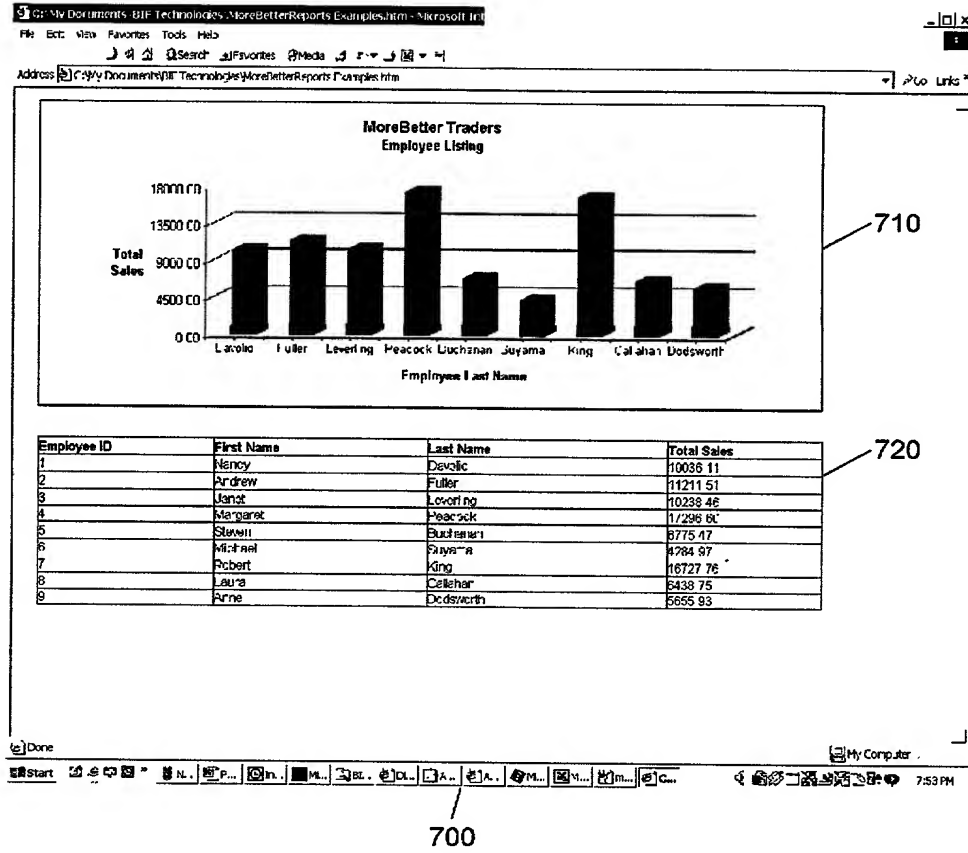


FIG. 7

Title: Relational Database Drill-Down Convention and Reporting
Tool
Inventor: Roderick L. Barnes
Attorney Docket No.: BIF.001

Report Pattern Parameters	
Name	employee_sales_by_year_by_category —810
Title	Employee Sales Details —812
Subtitle	{employee_name}—814
Header Logo	Logo.gif
Header	
Footer	Page {P} of {N} on {D} at {T}
Template	Crosstab —822
Query	<pre> SELECT to_char(o.OrderDate,'YYYY') as "Year", c.CategoryName as "Category", to_char(sum(od.Quantity*od.UnitPrice),'999999.99') as 850—"Total Sales" FROM Orders o, Order_Details od, Products p, Categories c WHERE o.EmployeeID = {employeeid} 872 AND od.OrderID = o.OrderID AND p.ProductID = od.ProductID AND c.CategoryID = p.CategoryID GROUP BY to_char(o.OrderDate,'YYYY'), c.CategoryName </pre>
Data Source	MoreBetter_Traders_Database.db —890

800

FIG. 8

Title: Relational Database Drill-Down Convention and Reporting
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Attorney Docket No.: BIF.001

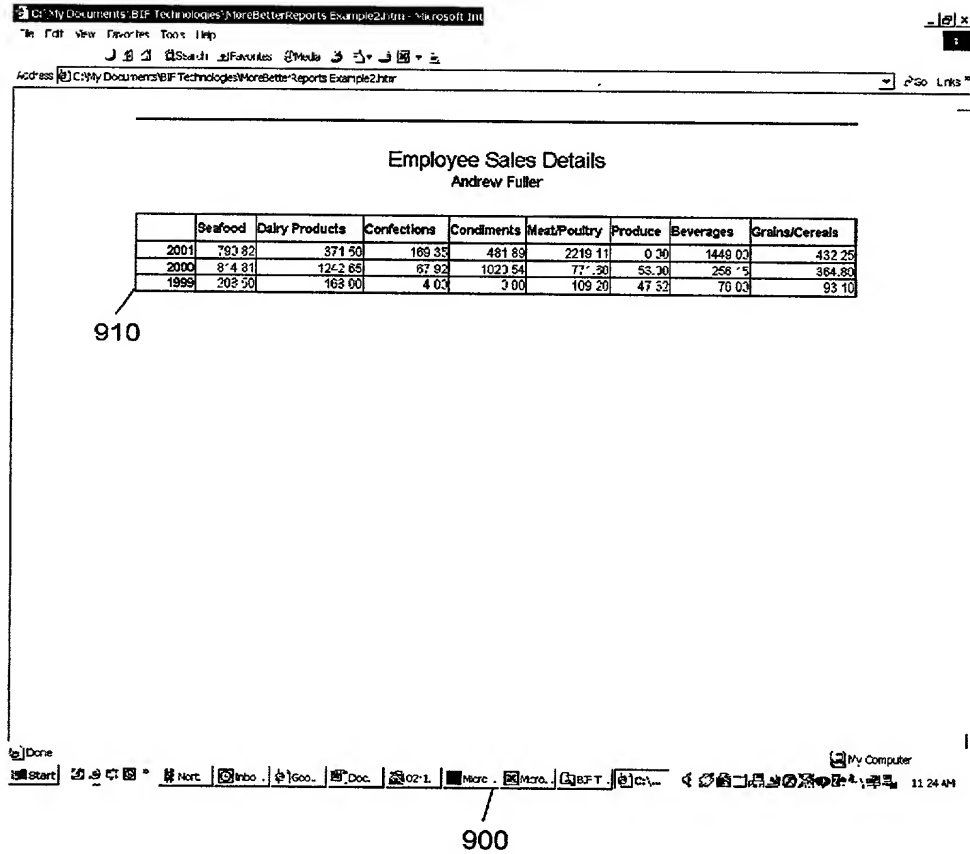


FIG. 9

1000
SELECT
 column_name AS column_alias, 1010

 drilldown_expression AS drilldown_metadata_column_heading 1020
FROM
 table_name AS table_alias, 1030

WHERE search_conditions

FIG. 10

1100
drilldown_expression :=
"report_name="report name ">[& <parameter name"> "<parameter value>]

FIG. 11

1200
drilldown_expression :=
<report_name> [(<parameter value> , ...)]

FIG. 12

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Attorney Docket No.: BIF.001

1300

```
REPORT AS report_name[(argument, . . .)]      — 1310
DEFINE                                         — 1320
    report_name.title AS expression,
    report_name.subtitle AS expression,
    report_name.template AS template_name,
    . . .
SELECT
    column_name AS column_alias,
    . . .
FROM
    table_name AS table_alias,
    . . .
WHERE search_conditions . . .
DRILLDOWN TO drilldown_report_name[(argument, . . .)] — 1360
. . .
END REPORT                                   — 1390
```

FIG. 13